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SUNDAY, MAY 8, 1904.

Circulation During April.

W. B. Carr, Business Manager of The St. Louis Republic, being duly sworn, says that the actual number of full and complete copies of the Daily and Sunday Republic printed during the month of April, 1904, all in regular editions, was as per schedule below:

Date.	Copies.	Date.	Copies.
1	103,420	16	105,010
2	105,520	17 (Sunday)	119,590
3 (Sunday)	120,810	18	101,890
4	103,870	19	103,520
5	103,310	20	103,730
6	104,390	21	102,320
7	103,290	22	102,850
8	103,600	23	103,620
9	104,490	24 (Sunday)	120,500
10 (Sunday)	120,660	25	102,570
11	103,450	26	102,800
12	103,870	27	103,840
13	103,170	28	104,040
14	101,610	29	104,570
15	101,370	30	106,180

Total for the month	3,171,955
Less all copies spoiled in printing, left over or filed	70,747
Net number distributed	3,101,208
Average daily distribution	103,373

And said W. B. Carr further says that the number of copies returned and reported unsold during the month of April was 6.75 per cent. W. B. CARR.

Sworn to and subscribed before me this 30th day of April. J. F. PARISH,
Notary Public, City of St. Louis, Mo.

My term expires April 25, 1905.

GOLF.

"Tell us not in jesting measures
Golf is but a foolish fad;
It's the chiefest of earth's pleasures—
He that rails at golf is mad.

Golf is glorious, golf is royal,
Yet in getting to the hole
Pits and bunkers oft destroy all
Of the goodness in your soul."

With respect to this royal game the world is divided into two classes, golfers and scoffers. Formerly the latter so overwhelmed the former in numbers—and with ridicule—that the mention of golf, in this country, produced a smile. The jokers classed it with tiddlywinks, it ranked innumerable degrees below crokinole, and the comic papers battened on it.

It did in truth seem beneath the American citizen to tog himself out in knickers and follow a ball across the grass with a small boy hired to pursue him. Especially did it seem beneath the average intelligence to be foozling on the tee—which is different from guzzling Scotch—and brassying over the bunker, which is even worse than lofting. No self-respecting person, it was thought, could be guilty of fooling with a niblick or puttering around with a putter or monkeying with a stymie or a bogie, much less of boasting of these things in polite society. The language of golf was worse than that of a Russo-Japanese war.

"What nonsense!" men exclaimed. "Golf for a grown man! Give me an old-fashioned game of shinny!" And others declared that that ancient pastime played with a can and a stick, called by the rather uncouth name of "Old Sow," was so far superior as not even to be mentioned with golf. Others maintained that marbles were a thousand times more exciting.

But times have changed. The scoffer is now tremendously outnumbered by the golfer. Many things have contributed to the revulsion of sentiment, not the least of which, perhaps, is the beverage which traditionally accompanies Scotch plaids and knickerbockers. The great ball with which golf is played is not, as many suppose, made of guttapercha, but of a distillation of potatoes combined with charged water.

Independently of its incidents, golf has been found to be a wholesome and delightful recreation. There may be a few old-timers who prefer baseball, but golf is the growing game. It is the game for all ages. We play it as "hard" or as "easy" as we like. It is the soothing game, the game which refreshes the tired mind. It is the game of the athlete and the old college professor.

Golf is not the whole, but is the predominant feature, of The Republic's Magazine for next Sunday. Two single pages and the center double-page are devoted to reproductions in color of excellent golf paintings made expressly for the number. Several descriptive articles of special interest to golfers, numerous golf "stories," golf romances and golf poems, and a front cover design by Cory Gilbert, being the picture of a caddy crying "Fore!" complete this entertaining feature.

The leading fiction of this issue is a tale by James B. Connolly, entitled "The Race at Sea," and has to do with a race in a storm between the smartest vessels of the Gloucester fishing fleet.

Notable among the exhibits at the World's Fair is a liberal display from the Manhattan School for Girls, of New York, which ranks as the first and only girl's trade school in the United States. In an article which cannot fail to attract feminine readers Lida Rose McCabe discusses "Where Girls Learn Trades." This article will render particularly interesting the exhibit of the trade school, which covers every kind of work, from that produced by the needle to the elaborate embroidery of the foot and electric power machines, examples of the expert sample mounter, pocketbooks, library desk appointments, notebook covers and novelty boxes; representing the actual daily accomplishment of the school. There are twelve leaf cabinets for this exhibit, made up of forty mounted frames in which is shown every branch of the academic, art and mechanical work that finds place in shops and factories employing women and children.

Next Sunday's Magazine is replete with instruction and entertainment.

TELLING REFORM.

Municipalists who differ with Mr. Charles J. Bonaparte about the desirability, as expressed by him, of partisan responsibility in the administration of municipal business, might profit by close attention to the tendency for enlargement of municipal authority and the concentration of governing power in the people. This tendency is the most significant feature of the present good-government movement.

Experts who have investigated the experiments of European cities in the ownership and management of public utilities go so far as to say that commonsense municipal ownership offers the ultimate prospect of abandoning direct taxation. Some of them believe firmly that sufficient revenue can be obtained through complete municipal supervision over the large public-utility enterprises to maintain the government without revenue from taxation. The claim is radical and far-reaching, but it cannot be gainsaid that European municipalities have demonstrated that there is a measure of possibility in such a hope.

Not with the object of realizing profit, but more particularly for the purpose of affording better accommodations to the public, Chicago is authorized by popular vote to enter into possession of the street railway systems and either operate them or lease them to responsible private corporations and regulate the service. The suggestive point about Chicago's step is not so much the growing popularity of municipal ownership, but rather the growing popularity of more popular government. The people would have the city manage the transportation facilities and retain to themselves some power over the public officials.

Municipalities have had the authority to grant franchises and presumably they have retained the right of compelling that rates and service be satisfactory. But the municipalities have lacked authority to own and manage enterprises of this nature. At this time it seems strange that a municipality could delegate rights to a private concern and not have the power to exercise them itself.

Whether the apparently exaggerated claims of extreme paternalists are right or wrong, practical or impractical, it is manifest that the people are ardently desirous for better system in municipal organization, for augmentation of municipal authority and for a strengthening of their own power in the practical conduct of business. St. Louis purchases a garbage-hauling plant from a private corporation, terminates the contract and arranges for a municipal collecting and hauling and disposal system. It builds and operates municipal lighting and railway plants for the Waterworks. It provides for a municipal electric generating plant in public buildings and succeeds in reducing the cost of lighting. It asserts its authority of supervision over the street railway service. Several other cities are taking similar action.

This sort of reform is universal. And it is a type of reform which may be considered fundamental, as it establishes an entirely new, stronger and more reliable system. It goes to the bottom of conditions and reconstructs the municipal organization.

The revolution—for it may be called a revolution—does not predict the passing of parties. It makes the need of parties more imperative. In creating a better system, by which evils may be minimized if not prohibited, it describes responsibility more definitely and consequently shows how it is possible to elevate party standards and insure good government by partisan direction. Party domination is a permanent factor in the American method of administration, and permanent good government must be realized through the standing organizations.

POWER OF WIDOWS.

The elder Weller warned the cheerful Samuel to "beware of widders," and it is a warning that every misogynist repeats. The charm that lies in a widow's eyes has caused the capitulation of many confirmed women-haters. Recently the dispatches have told of another striking example of inability to resist the temptation.

In Chaplin, Conn., there lived a retired farmer who had ignored the smiles and the glances of women for seventy-three years. He was wealthy and a Chesterfield, and many women appeared before him with all the usual artifices. He was apparently bullet proof. One by one they gave up the job and sought newer and greener fields, in which they were successful. The farmer became a memory. However, he was taken ill and a widow came in to nurse him.

If there can be one place more than another where a woman shines, it is in a sickroom. It is presumed that the widow knew her art perfectly, as once before she had corralled a "mere man" and brought him to her feet. She was successful in this campaign, and the veteran warrior who had gone unscathed through many of Cupid's battles was pierced and fell. And the whole countryside was surprised.

The "Old Cattleman" said that "when a man gits past 30 you've got to blindfold him and back him into the matrimonial stall," but it is not to be believed for a minute that the hero of "Wolfville" knew whereof he spoke. He had not figured on widows, as had Mr. Weller. The latter knew their danger, and, therefore, warned Samuel. There is no doubt that, in the language of "Billy Baxter," any widow can make the average man "lay down and roll over and jump through a hoop and play dead" whenever she pleases. The Connecticut event seems to be proof that when she gets her arrangements to suit her the widow is sure to win.

SEEING AND HEARING.

Plans for some 300 conventions in St. Louis during the World's Fair contradict the contention that oratory has lost its usefulness. The printing press, with its allied sciences and arts, has superseded word of mouth in transmitting knowledge and information; but, while it has trespassed upon the field, direct speech is able to occupy a wider sphere than it did when it was the one means of communication.

The world of to-day is a vaster and more complicated institution. Conditions are such that, for certifying to events and statements, the book and the newspaper are necessary. In a time like this oratory could not be a monopoly without creating wide confusion. For the spoken word is a frolicsome thing, which, through the process of repetition, acquires a new style and a new meaning in each transition.

The treasury of knowledge and the surety of authority reside in the book, which is a permanent thing and an essential of modern life. It is to-morrow what it is to-day and in the West what it is in the East, the North and the South. Oratory could not meet the larger requirements of the present day.

But the speech of man to man has not been set aside. Never will come a period when man will not like to hear the notes of a voice, to see the play of facial expression, to feel the spell of magnetic personality and to imbibe the pleasing flow of well-stated thoughts. Never will man forget the interest and emotional satisfaction which are associated with meetings. There was, and is, and always will be something fascinating in the congregation of people.

The 300 conventions which will be held in St. Louis this year and the more which will be held in other cities indicate the hold which the spoken word retains in this century. And following them will come the political campaigns, with their great meetings and the speeches of leading men of affairs.

Most of the objects which these conventions seek to attain could be realized by the circulation of pamphlets; but not all. And yet the convention habit would not be abandoned, if, by the written word, all of the objects sought and more were assured.

The many conventions scheduled for this year not only attest to the expansion of knowledge, but they typify the sentimental aspect of a very practical age. There is a profound fervor about a people which shows such great interest in the spiritual and mental and moral matters of life, and which finds such keen enjoyment in assembling and exchanging views by the spoken word, as in the long ago, upon a variety of topics. Oratory still has a hallowed place in the progress of humanity.

Patriots are glad that the American flag floats over the route of the Panama Canal. But their pleasure should not be construed as a desire for the sudden and mysterious establishment of additional republics. They are more than satisfied with the government-building business.

The 75-year-old bridegroom who took unto himself a 65-year-old bride, with thirteen children, may confidently look for an interesting denouement. There are fourteen reasons why he should have a jolly fireside.

The Married Men's Antieuchre and Home Preservation Society is a new social organization which has come into existence in Bayonne, N. J. Predictions as to its future will be reserved for later developments.

The selection of the former Secretary of War for temporary chairman of the Republican National Convention signifies that he probably did go to New York to Root for President Roosevelt.

Senator Aldrich's assertion that the tariff will be the issue in the next campaign is a reflex of public opinion. As the issue is construed by the people the tariff is the Republican party.

Local waiters are assertive. But much will be forgiven if they will not strike for larger tips. A little money is needed for rent.

Western cattle-growers have organized to fight the meat trust, and the public still is in doubt.

The Czar ought to end the war at once. Japan has won in a university debate in St. Louis.

RECENT COMMENT.

Professional German Women.

The Pilgrim.

Back twenty or thirty years ago a few women began to call the attention of their sisters to all the evil and dependence the lack of education meant for them in a country where knowledge is accounted the highest good. Quiet, steady work followed, undismayed by legislative action and by public abuse and ridicule, until now almost all the German universities are open in a measure to women, allow them degrees in various branches, and high schools and preparatory schools and courses exist in various cities. With the right to study the professions at home has come the right to practise them, and there are a number of women physicians and a few women lawyers in Germany to-day, something that would have been considered impossible thirty years ago. Prominent men have been enlisted in the service of higher education for women, and the daughter of a Minister of Education was one of the first pupils of the high school courses opened in Berlin ten years ago. Prominent in this work have been such educators of note as Helene Lange in Berlin, Elizabeth Gnauck-Kuhne in Leipsic and those veterans of the movement, now passed away, Louise Otto-Peters of Leipsic and Matilde Weber of Tubingen.

Japan Looking for War.

Count Cassini in North American Review.

When I was in Paris last summer a prominent Japanese remarked to me:

"Before we meet again our countries probably will be at war."

"Why do you say that?" I asked. "Russia's desire has always been for peace, and the war would not be of her making."

"Certainly not," he replied. "It would be what my country has so long been hoping for and expecting. She needs a war to place her in the front rank of nations; and while your diplomacy may stave off hostilities a little while longer, Japan will get a war with you before a year has gone."

I hoped my Japanese friend was wrong; my Government hoped so; and yet even then there were many evidences that he spoke the truth. The correctness of his statement was not fully appreciated, however, until the treacherous midnight attack at Port Arthur by Japanese torpedo-boats, while the Japanese Minister at Petersburg was still enjoying the protection and the the courtesies of the Russian Government, to whom he had only a short while before expressed the confident hope that war might yet be averted.

Dvorak's New World Symphony.

New York Sun.

The death of Antonin Dvorak, the distinguished Bohemian composer, recalls the curious critical controversy over his symphony, "From the New World," which he composed while a resident of this country. Doctor Dvorak believed that the way to give national color to music was to imitate the melodic and harmonic idioms of its folk song. He wished to write an American symphony, and the only folk song he could find in this country was the plantation melody of the negro. So he imitated that in his themes. That is, he said he did, and the leading critics of this city accepted his statement, heard the symphony, and decided that it bore out its maker's assertion. Leading critics of Boston promptly decided that Doctor Dvorak's themes were not negro but Bohemian, that there was no such thing as negro folk song, anyhow, and that if there was, it was not American. The symphony was first performed in New York, and therefore became a man of straw. There was not much left of that symphony after Boston was through with it, but it is still performed occasionally in this city by the Boston Symphony Orchestra.

"Hara-Kiri," Not "Hari-Kari."

To the Editor of the New York Sun: Sir—I notice in all the newspapers, including the Sun, to-day, that the Japanese suicide by cutting open the abdominal walls, or disemboweiment, is referred to under the spelling "hara-kari." The correct term is "hara-kiri," pronounced with the accent on the second syllable, and not "hairy-kairy." As many of the Japs from now on in the fight with Russia, when defeated, will be doomed to show their national characteristic as "quitters," and commit this suicide of "happy despatch," we should be more accurate in our allusion to it.

"Hari-kari" means, if anything, "glass-goose," which is nonsense. "Hari-kiri," the correct term, means "belly cut."

A Japanese in victory is one thing; in adversity quite another. In the first instance he is bumptious, cocky, a boastful braggart; in defeat, the worst kind of a coward, so pusillanimous that he is the most pitiful wreck, mentally and physically. M. D.

Developing Real Strength.

Gertrude Atherton in North American Review.

There is only one way in which man or woman can develop real strength, and that is to fight unceasingly and to stand absolutely alone

FLIRTATIONS ARE RESPONSIBLE FOR AN ABUNDANT HARVEST OF UNHAPPINESS.

BY MRS. JOHN A LOGAN.

WRITTEN FOR THE SUNDAY REPUBLIC.

The scientific status of flirtation was recently discussed by Dean James H. Tufts of the University of Chicago:

"Coquetry is a training of the abilities which one needs in serious life. It is not merely an outlet for the dissipation of the surplus energies, but it tends to the development of the higher and intellectual faculties."

The above is without exception one of the most remarkable utterances from an educator that I remember to have ever read.

It is, of course, well understood that there has been much discussion on this subject of co-education in the university. Thoughtful persons have felt glad to think that President Harper had caused certain restrictions to be placed upon the too free intermingling of the students.

Giving expression to such ideas one should think would not gain the support of desirable people for the university. It is so diametrically opposite to what a majority consider propriety that its legitimate effect would be to cause adverse criticism.

"Coquetry is a training of the abilities which one needs in serious life" strikes one as fallacious in the extreme. On the contrary, it has always been thought demoralizing in every sense of the word, and it was considered the root of many evils in the character, especially of women, coquetry being responsible for the abundant harvest of unhappiness many of them have reaped from silly flirtations.

Webster's definition of coquetry is as follows: "Affectation of amorous advances; trifling in love." If Webster is correct, it would be difficult to discover how "the abilities" could be trained by trifling or by indulgence "in amorous advances." To most persons it would seem the cultivation of such propensities would produce anything but desirable results.

Heartlessness, the most fatal thing in a woman, should assuredly be avoided, as it does create in her an aversion for many high and holy duties devolving upon woman which require self-sacrifice and humility.

To make the advances of a coquette one must lay aside modesty, one of the most attractive virtues in a woman.

The employment of the arts and affectations of a coquette must necessarily make them insincere and deceitful, two abhorrent vices either in man or woman.

Few coquettes have ever overcome their pernicious propensities even after taking vows of faithfulness unto death to the man who runs the risk of marrying a flirt.

The New Century Dictionary's definition of a coquette would suggest anything but a model worthy of being copied:

"A woman who endeavors to gain the admiration of men; a vain, selfish, trifling woman who endeavors to attract admiration and advances in love for the gratification of her vanity; a flirt, a jilt."

This being the latest authority on the meaning of the English language I am still at a loss to know from what source Dean Tufts derives knowledge of grounds upon which to base his ultra theories, so at variance with what is supposed to be the object of higher education.

People have been laboring under the impression that education is for the development of the higher and nobler qualities of all mankind; that knowledge tends to make people thoughtful, upright, steady and better.

No one ever dreamed that the cultivation of frivolous, deceitful, improper, insincere, immodest and unbecoming propensities could possibly develop "abilities which one needs in serious life."

Shakespeare, Pope, Scott, Lowell, Marvel, Chartfield, Wordsworth and a score of able writers have paid tribute to noble women, assigning to them all the virtues with which the human heart is endowed, and have as strongly expressed their condemnation of coquettes and flirts.

"Your true flirt has a course grained soul; well modulated and well tutored, but there is no fineness in it."—Marvel.

This seems to be a correct diagnosis of a flirt, and certainly does not furnish an example worthy of emulation; neither could one expect to see such a charctete lay aside her arts and become a devoted, loyal wife, a tender, patient mother, no matter how successful she may have been in entrapping the noblest among men.

Having spent her time in cultivating her vanities and in tutoring her own heart to be indifferent to the highest impulses and the virtues so essential in

A perfect woman nobly planned,
To warm, to comfort and command.

Chatfield describes a "coquette as a female general who builds her fame on her advances," a fame that is destined to premature decay and to bring the silly "general" all the ills to which flesh is heir. One has only to pick up any daily paper to read innumerable tragedies that are the sequels of flirtations.

How many innocent girls have fallen victims to this virtue-killing evil, yielding to love of admiration and the wiles of some tempter, she finds too late that she must reap the consequences of her folly in sadness and tears, if not in dishonor and disgrace.

Coquetry was never prompted by any noble or righteous aim. It has generally been born of conceit and personal vanity, and has for its object the gratification of the most ignoble traits of character.

Coquettes never brought from Otway his lovely tribute to woman:

Oh, woman, lovely woman! Nature made thee
To temper man; we had been brutes without you.
Angels are painted fair, to be like you;
There's in you all that we believe of heaven;
Amazing brightness, purity and truth,
Eternal joy, and everlasting love.

Nor from Abraham Lincoln his immortal words, "All that I am or can be, I owe to my aged mother."

Or from John Quincy Adams his imperishable acknowledgement of his gratitude to his mother, "All that I am my mother made me."

For the sake of the university it is to be hoped that President Harper will make haste to repudiate the noxious doctrine promulgated by Dean Tufts. Few good mothers would like to trust their daughters to an influence so hurtful as that which would naturally follow such teachings.

Society has been sadly affected by the indulgence of men and women in dangerous and demoralizing flirtations, the divorce courts furnishing proofs of their baneful consequences. There are plenty prone to the practice without professors and teachers recommending it as a source of development of abilities.

THE EXPRESSION OF A WOMAN'S MOUTH REVEALS HER CHARACTER

BY ELLA WHEELER WILCOX.

Some time ago the editor asked me to write on the subject, "What is Woman's Most Interesting Feature?"

Were I a man, looking for a wife, I should study the expression of a woman's mouth with great interest before trusting my life in her keeping. Eyes and voice and gestures can be trained to conceal and misrepresent the feelings, emotions and thoughts, but the mouth is less tractible, less under control of the brain.

Even when it is forced into a meaningless smile, it betrays the insincerity of that smile. The shape of the lips, the lines about them, the arch or the droop of the corners, all illustrate a woman's nature, disposition and temperament.

Were I a man I should beware of the mouth like a straight line, with thin, close-shut lips. Such a woman has allowed herself to become severe, stubborn and dogmatic, and there is a lack of the softer elements in her heart. Great power of loving never exists in such a nature. The small, pouting, buttonhole mouth, much pictured in old paintings, as it is almost invariably an indication of a petulant and selfish nature—a nature which expects to be catered to, and considered and indulged, without regard to reason or justice.

A woman with the noticeably projecting upper lip and particular display of teeth, I should fear might love to talk over much, and to suffer from more than a safe share of self-esteem.

A mouth, drooping at the corners, would be sure to drive me away, since I should know it meant a despondent and melancholy tendency.

Over-thick lips I should fear might indicate a lack of the finer qualities, yet if a woman with those lips had been carefully reared and surrounded by refining influences, I would sooner venture upon making her a life comrade than the thin-lipped aristocrat. A full, not small, mouth, with sensitive corners, inclined upward, and an expression of sweetness and sympathy in its lines, would attract me to a woman at once. I should know her nature was wholesome and affectionate and cheerful.

I should beware of a woman with exceptionally brilliant eyes, the brilliancy which glitters.

Whether of steely blue, or cut jet, or topaz brown, that glitter indicates one of two things—a strain of cruelty or a strain of hysteria. A woman's eye must be soft—it must be like a limpid well, not like a piece of metal or ore, however brilliant the ore it suggests.

It must be satisfying to the heart, as well as to the sight, receive its luster from the soul within, not merely from its own shape and coloring.

The soulful eye glows, but it never glitters.

A woman's face should be capable of animation and repose.

A man should beware of a face indicative of nervous strain and worry.

There is no rest or relaxation to be found in the association of such a woman, however mentally endowed and accomplished she may be, yet the progressive man with ideals of constancy must not be led into a union with the woman of phlegmatic face, however beautiful, since she will pall upon him as surely as a monotonous diet palls upon an epicurean appetite.

First—love, then cheerfulness, then animation, then serenity—these expressions form a womanly woman's face.

SUMMER OF 1904 IS LIKELY TO BE A SEASON OF MANY CYCLONES

BY GARRETT P. SERVISS.

WRITTEN FOR THE SUNDAY REPUBLIC.

The recent tornadoes in Texas, Arkansas, Kentucky and other States reminds us that we are at the beginning of another tornado season, but in this case it is very probable that the tornadoes will be more numerous and more violent than have been known for a number of years past.

There is some mysterious connection between the prevalence of tornadoes and the condition of the sun. A new sun spot period is now beginning and it is likely to be more pronounced in its effects upon the earth than any period in the past twenty or thirty years. But it is impossible to say yet exactly how the forces which produce spots upon the sun cause tornadoes to be more common in the atmosphere of the United States.

I say atmosphere of the United States because it is a singular thing that this terrific kind of storm compartively seldom occurs in other parts of the world. It may almost be called a specialty of American weather.

More than that the localities where tornadoes occur are pretty definitely marked on the map. There is a decided tornado belt beyond the limits of which these storms are either infrequent or never happen at all. This belt begins this side of the One Hundredth Meridian, or near the eastern edge of the great continental plateau. It sweeps down the Missouri Valley, across the Mississippi and the Southern States, especially Northern Alabama, Georgia and South Carolina.

The greatest center for these storms is around the junction of the Mississippi, Ohio and Missouri valleys. They never occur in the Allegheny Mountains, but are occasionally known in New York and New England. But their frequency is so much greater in the region of the Mississippi River and the great wheat prairies and corn lands of the Middle West that one naturally connects them in his mind with that part of the country.

The connection between tornadoes and ordinary storm areas is a very significant one. For some reason tornadoes always occur along the southeastern border of an area of low pressure, or what is called by the weather men a cyclonic area.

The reason they occur there is because it is only in such a situation that a moist warm wind is likely to force its way underneath a mass of cold air lying at a height of a thousand feet or more above the surface of the earth.

On the southeastern edge of a cyclonic area, which edge, in the ordinary storms that cross the United States, is usually situated within what has just been described as the cyclone belt, the prevailing winds are from the south and are likely to bring considerable moisture from the Gulf of Mexico and the South Atlantic. These winds hurrying in toward the low center of the storm are apparently thrust underneath the cold air which is brought down from the northwest by the winds prevailing along the western edge of this area.

Now this situation brings into play the forces that make tornadoes. The warm, moist air is lighter than the cold air above it. Consequently it tends to rise. Owing to some inequality in the level of the ground, or other local influence, at last a point is found where the warm air begins to pour up through the cold air above it like a mass of oil which has been carefully forced underneath water in a basin. As soon as the up-rush begins all the air near the surface of the earth surrounding that point, of course, hurries in to take the place of the warm air which is rising.

Then for some reason which has never yet been satisfactorily explained, but which probably arises from the influence of the cyclonic winds themselves sweeping circularly around the center of the storm, these currents of warm air rushing toward the point where the rise is taking place are deflected from their course in such a manner as to draw spirally inward in a direction opposite to the motion of the hands of a watch.

The more air that rushes in toward the center the greater the velocity of motion at the center itself. At length the whirl at the center becomes so swift that a semi-vacuum is formed here and this vacuum creates, as it were, a chimney in the atmosphere through which the warm air rushes upward as through the tall chimney of a factory. Thus the tornado is born.

The velocity with which the air rushes into the tornadic center becomes astounding, amounting in some cases to a hundred and fifty or perhaps two hundred miles an hour. At the center itself the air ascends vertically, and a suctional force is thus developed which is sufficient to draw up to a height of hundreds or even thousands of feet the heaviest objects, farm implements, fragments of buildings, the limbs of trees, heavy timbers, cattle and human beings.

The central funnel of the storm, owing to the condensation of moisture going on within it as the hot air rushes swiftly up into colder regions, and owing also to the great quantity of dust and debris of every kind that is sucked up from the ground, becomes quickly of an intense and even inky blackness, presenting an appearance which is characteristic and which creates the greatest terror in the minds of people who are acquainted with the destructive power of these strange storms.

Not only does the tornado wind whirl with tremendous velocity, but, at the same time, the funnel of the tornado itself sweeping and dragging along the ground, and sometimes resembling the trunk of a gigantic elephant with its head in the clouds, also moves swiftly in a direction which is usually from the southwest toward the northeast. Sometimes the motion is almost directly eastward, but it very seldom happens that the path of a tornado is directed toward the southeast, and never toward the west.

The speed with which a tornado advances varies from twenty to as high as fifty miles an hour. The path of destruction, that is to say, the width of the tornadic funnel at the point where it touches the ground, commonly varies from a hundred to three hundred yards. Thus such a storm may sweep through a town of considerable size, making a narrow pathway within which every building has been destroyed and the trees and the shrubbery leveled while at a short distance aside from the path very little destruction may have been wrought. The length of a tornado's path varies from a mile up to fifty miles or more.

One thing which adds a special element of terror to a tornado seen rushing across a level country is the peculiar motions of the funnel-shaped cloud. It swings about in a most erratic and wilful way, sometimes skipping a house which a moment before had seemed to be doomed to certain destruction and rushing down upon some other building which had seemed to be situated safely aside from its path. Then, too, the funnel of a tornado will sometimes make the most extraordinary leaps through the air, suddenly quitting the ground, springing up five hundred or a thousand feet, only to come down again a few hundred rods further on and resume its work of destruction.

Although the location of tornadoes on the southeastern quadrant of a cyclonic area is a well-established fact, it is not possible to predict any particular tornado except from strictly local data. People who live in the tornado belt are well acquainted with the characteristic state and appearnace of the atmosphere when a tornado is imminent. The sudden quiet, the oppressive temperature, the hush, the apparent waiting of nature, all these things are phenomena that have often been observed.

TWENTY-FIVE YEARS AGO TO-DAY IN ST. LOUIS.

From The Republic, May 8, 1879.

Patrolman Schmidt killed a dog that had bitten Mrs. Mary Freitag of No. 2005 North Broadway.

The Mound City Cricket Club announced through Mr. Treloar that a match had been made with a Springfield, Mo., team.

W. A. H. Harris, secretary of the Kansas State Temperance Union, and vice president of the National Christian Temperance Union, arrived in St. Louis on his way to the East on a lecture tour.

A meeting of liquor dealers was held at the Lindell Hotel for the purpose of fighting a proposed liquor taxation. Among those present were: Griffith Prather, P. G. Gerhart and B. H. Engelke.

The suit of David R. Boogher against the Maryland Life Insurance Company of Baltimore was commenced before Judge Lindley.